

CLAIMS

1. A method of providing a response to a querying device in a system comprising a querying device and a serving device which uses a Content Directory Service (CDS) to store media content information, the method comprising:
- receiving, from the querying device, a query for media content information from the CDS of a serving device;
- deriving an estimate of at least one parameter of the response; and,
- providing the estimate to the querying device.
2. A method according to claim 1 wherein the step of deriving an estimate to the query uses knowledge of previous querying performance of the serving device.
3. A method according to claim 2 wherein the knowledge of previous querying performance of the serving device is acquired by performing sample queries on the serving device.
4. A method according to claim 2 or 3 wherein the knowledge of previous querying performance of the serving device is acquired by storing performance data of previous queries.
5. A method according to claim 4 wherein the knowledge of previous querying performance includes feedback from querying devices, indicative of actual performance of the serving device.
6. A method according to any one of the preceding claims wherein the step of deriving an estimate uses knowledge of the CDS of the serving device.

7. A method according to claim 6 wherein the knowledge of the CDS comprises one or more of: structure of the CDS, population of the CDS, searching capabilities of the CDS, metadata availability, capacity of a communication link between the querying device and the serving device.

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8. A method according to claim 6 or 7 wherein the knowledge of the CDS is acquired from another device, other than the serving device hosting the CDS.

10 9. A method according to any one of the preceding claims wherein the parameter is a time for the serving device to respond to the query.

10. A method according to any one of the preceding claims wherein the parameter is the size of the response.

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11. A method according to any one of the preceding claims wherein the querying device is a device which hosts a user interface and the method is performed by the querying device.

20 12. A method according to any one of claims 1 to 10 which is performed by a device other than the querying device.

25 13. A method according to any one of the preceding claims which is performed as a service on behalf of a plurality of querying devices in the system.

30 14. A method of operating a user interface of a querying device in a system comprising a querying device and a serving device using a Content Directory Service (CDS) to store media content information, the method comprising:

sending a query for media content information from the CDS of a serving device to a device which provides an estimate of at least one parameter of the response;

receiving the estimate; and,

5 providing feedback to a user based on the estimate.

15 15. A method according to claim 14 wherein the parameter is a time for the serving device to respond to the query and the feedback depends on the length of the response time.

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16. A method according to claim 15 wherein there are a plurality of different possible types of feedback, each type of feedback being associated with a particular range of response time.

15 17. A method according to any one of claims 14 to 16 wherein the feedback comprises a display which indicates the remaining time.

18. A method according to any one of claims 14 to 17 wherein the parameter is size of the response and the feedback is at least one navigation control based on the size of the response.

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19. Software for causing a processor to perform the method according to any one of the preceding claims.

25 20. Apparatus for providing information to a querying device in a system comprising a querying device and a serving device using a Content Directory Service (CDS) to store media content information, the apparatus comprising:

means for receiving, from the querying device, a query for media content information from the CDS of a serving device;

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means for deriving an estimate of at least one parameter of the response; and,

means for providing the estimate to the querying device.

21. Apparatus according to claim 20 wherein the means for deriving an estimate to the query uses knowledge of previous querying performance of the serving device.

22. Apparatus according to claim 22 which is arranged to acquire the knowledge of previous querying performance of the serving device by performing sample queries on the serving device.

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23. Apparatus according to claim 21 or 22 which is arranged to acquire the knowledge of previous querying performance of the serving device by storing performance data of previous queries.

24. Apparatus according to claim 23 wherein the knowledge of previous querying performance includes feedback from querying devices, indicative of actual performance of the serving device.

25. Apparatus according to any one of claims 20 to 24 wherein the means for deriving an estimate uses knowledge of the CDS of the serving device.

26. Apparatus according to claim 25 wherein the knowledge of the CDS comprises one or more of: structure of the CDS, population of the CDS, searching capabilities of the CDS, metadata availability, capacity of a communication link between the querying device and the serving device.

27. Apparatus according to claim 25 or 26 which is arranged to acquire the knowledge of the CDS from another device, other than the serving device hosting the CDS.

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28. Apparatus according to any one of claims 20 to 27 wherein the parameter is a time for the serving device to respond to the query.

29. Apparatus according to any one of claims 20 to 28 wherein the
5 parameter is the size of the response.

30. Apparatus according to any one of claims 20 to 29 in the form of a querying device which hosts a user interface.

10 31. Apparatus according to any one of claims 20 to 29 in the form of a device which is physically separate from the querying device.

32. Apparatus according to any one of claims 20 to 31 which is accessible by a plurality of querying devices in the system.

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33. A user interface of a querying device for use in a system comprising the querying device and a serving device which uses a Content Directory Service (CDS) to store media content information, the user interface comprising:

20 means for sending a query for media content information from the CDS of a serving device to a device which provides an estimate of at least one parameter of the response;

means for receiving the estimate; and,

means for providing feedback to a user based on the estimate.

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34. A user interface according to claim 33 wherein the parameter is a time for the serving device to respond to the query and the feedback depends on the length of the response time.

30 35. A user interface according to claim 34 wherein the means for providing feedback is arranged to provide a plurality of different possible types

of feedback, each type of feedback being associated with a particular range of response time.

36. A user interface according to any one of claims 33 to 35 wherein
5 the means for providing feedback is arranged to provide a display which indicates the remaining time.

37. A user interface according to any one of claims 33 to 36 wherein
the parameter is size of the response and the means for providing feedback is
10 arranged to provide at least one navigation control based on the size of the response.

38. A querying device hosting the user interface according to any
one of claims 33 to 37.

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39. A method, software, apparatus, user interface or device
according to any one of the preceding claims for use in a system which
conforms to Universal Plug and Play (UPnP).

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